

## Claims

I claim:

1. A deck bracket for attaching a deck to a building comprising:
  - a solid bar, an L shaped bracket, a sheath, a mounting support member, a floor joist member and a composite support member;
  - said solid bar having a first end and a second end;
  - said L shaped bracket having a vertical side and a horizontal side;
  - said vertical side comprising an upper end, a middle portion, a lower end, a front face, a back and a plurality of bolt holes;
  - said vertical side further comprising a first bore located between the upper end and the middle portion of the vertical side;
  - said mounting support member being fixedly attached to the back side of the vertical side;
  - said mounting support member comprising a second bore;
  - said first bore and said second bore being aligned in their relation to each other;
  - said first end of said solid bar being flush with said front face of said vertical side and being situated within said first bore and said second bore and attached to said vertical side and said mounting support member;
  - said sheath comprising a first wide side, a second wide side, two narrow sides, an inside, an outer side, a first end bore, a second end bore and sheath bolt holes;
  - said first end bore being situated within said first wide side;
  - said second end bore being situated within said second wide side;

said first end bore and said second end bore being aligned in their relation to each other;

said sheath being positioned about and fixedly attached to said floor joist member;

said solid bar being inserted through a first hole in said building and through a second hole in said composite support member such that the second end of said solid bar extends into said building and beyond said composite support member;

said second end of said solid bar being inserted into and through said first end bore of said sheath, continuing through a third hole within said floor joist member and further continuing into and through said second end bore, said first, second and third holes being aligned on a horizontal plane with said first bore, second bore, first end bore and second end bore;

whereby said deck bracket extends from an interior of said building such that the L shaped bracket is situated outside of and a distance from said building, said horizontal side of said L shaped bracket holding deck rim joist support members, said deck rim joist support members being fixedly attached to the front face of said vertical side of said L shaped bracket, said solid bar extending from the first bore and second bore and extending beyond said back of said vertical side of the L shaped bracket into the building, said solid bar further being situated within and through drilled holes in said composite support member and said floor joist member, thereby transferring load from the deck to said members, said solid bar being further supported by said sheath disposed about said floor joist member, whereby a portion of the load of the deck would thereby be transferred to said building, and the deck bracket would not be in direct contact with said building other than the solid bar, which would thus diminish or prevent the accumulation

of moisture, thus preventing decay of structural load bearing components of the deck and the building.

2. The apparatus of claim 1 wherein the first end and the second end of said solid bar are threaded, the first bore is threaded, the second bore is threaded, and the second end bore is threaded, whereby said second end of said solid bar is screwed into the second end bore and said L shaped bracket is screwed onto said first end of said solid bar thereby forming the deck bracket.

3. The apparatus of claim 1 wherein the plurality of bolt holes within said vertical face comprise an upper bolt hole and a lower bolt hole.

4. The apparatus of claim 1 wherein the solid bar, the L shaped bracket and the mounting support member are made of steel or such other strong metal or material of similar strength and characteristics and the sheath is made of steel, tin, aluminum or such other metal or man made material such as plastic, fiberglass, a composite material or the like, of similar strength and characteristics.

5. The apparatus of claim 1 wherein the solid bar is a cylindrical bar of one and one-quarter inches in diameter and has a length of two feet six inches to three feet, the L shaped bracket is made of one-half inch thick steel plate with a width of three inches, the front face of the vertical side is seven and one-half inches in length, the back of the vertical face is eight inches in length, the horizontal side of the L shaped bracket is three and one-half inches in length, the upper bolt hole and the lower bolt hole each have a diameter of seven-sixteenths of an inch, the upper bolt hole is centered at a point three-quarters of an inch down from the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the lower bolt hole is

centered at a point five and five-eighths inches below the upper bolt hole and one and one-half inches from either edge of the vertical side of the L shaped bracket, the first bore has a diameter of one and one-quarter inches, centered at a point two and three-quarter inches below the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the mounting support member is two and one-half inches wide by two inches tall by three-quarters of an inch thick, said mounting support member being attached to the back of the vertical side at a point one and three-quarters inches down from the upper end of the vertical side and one-quarter inch from each side of the vertical side and four and one-quarter inches from the lower end of the vertical side, the second bore has a diameter of one and one-quarter inches and is centered at a point one inch from the top and bottom of the mounting support member and one and one-quarter inches from the sides of the mounting support member, the sheath is five and one-half inches wide by two and one-half inches deep by five and one-half inches tall, the first end bore and second end bore each have a diameter of one and one-quarter inches and are centered two and three-quarters inches from either side of the sheath at any point along that midline of the first wide side and second wide side, as the case may be, so long as the first end bore and second end bore are located at least one-half inch from the bottom of the sheath, and the sheath bolt holes are situated near each of the four corners of each of the first wide side and second wide side.

6. A deck bracket for attaching a deck to a building comprising:

a solid bar, an L shaped bracket, a sheath, a mounting support member, and a structure support member;

said solid bar having a first end and a second end;

said L shaped bracket having a vertical side and a horizontal side;

said vertical side comprising an upper end, a middle portion, a lower end, a front face, a back and a plurality of bolt holes;

said vertical side further comprising a first bore located between the upper end and the middle portion of the vertical side;

said mounting support member being fixedly attached to the back side of the vertical side;

said mounting support member comprising a second bore;

said first bore and said second bore being aligned in their relation to each other;

said first end of said solid bar being flush with said front face of said vertical side and being situated within said first bore and said second bore and attached to said vertical side and said mounting support member;

said sheath comprising a first wide side, a second wide side, two narrow sides, an inside, an outer side, a first end bore, a second end bore and sheath bolt holes;

said first end bore being situated within said first wide side;

said second end bore being situated within said second wide side;

said first end bore and said second end bore being aligned in their relation to each other;

said sheath being positioned about and fixedly attached to said structure support member;

said solid bar being inserted into and through a first hole in said building, said second end of said solid bar extending to and through said first end bore of said sheath and continuing through a second hole within said structure support member and further

continuing into and through said second end bore, said first and second holes being aligned on a horizontal plane with said first bore, second bore, first end bore and second end bore;

whereby said deck bracket extends from an interior of said building such that the L shaped bracket is situated outside of and a distance from said building, said horizontal side of said L shaped bracket holding deck rim joist support members, said deck rim joist support members being fixedly attached to the front face of said vertical side of said L shaped bracket, said solid bar extending from the first bore and second bore and extending beyond said back of said vertical side of the L shaped bracket into said building, said solid bar further being situated within and through a drilled hole in said structure support member, thereby transferring load from the deck to said member, said solid bar being further supported by said sheath disposed about said structure support member, whereby a portion of the load of the deck would thereby be transferred to said building and the deck bracket would not be in direct contact with said building other than the solid bar, which would thus diminish or prevent the accumulation of moisture, thus preventing decay of structural load bearing components of the deck and building.

7. The apparatus of claim 6 wherein the first end and the second end of said solid bar are threaded, the first bore is threaded, the second bore is threaded, and the second end bore is threaded, whereby said second end of said solid bar is screwed into the second end bore and said L shaped bracket is screwed onto said first end of said solid bar thereby forming the deck bracket.

8. The apparatus of claim 6 wherein the plurality of bolt holes within said vertical face comprise an upper bolt hole and a lower bolt hole.

9. The apparatus of claim 6 wherein the solid bar, the L shaped bracket and the mounting support member are made of steel or such other strong metal or material of similar strength and characteristics and the sheath is made of steel, tin, aluminum or such other metal or man made material such as plastic, fiberglass, a composite material or the like, of similar strength and characteristics.

10. The apparatus of claim 6 wherein the solid bar is a cylindrical bar of one and one-quarter inches in diameter and has a length of seven inches, the L shaped bracket is made of one-half inch thick steel plate with a width of three inches, the front face of the vertical side is seven and one-half inches in length, the back of the vertical face is eight inches in length, the horizontal side of the L shaped bracket is three and one-half inches in length, the upper bolt hole and the lower bolt hole each have a diameter of seven-sixteenths of an inch, the upper bolt hole is centered at a point three-quarters of an inch down from the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the lower bolt hole is centered at a point five and five-eighths inches below the upper bolt hole and one and one-half inches from either edge of the vertical side of the L shaped bracket, the first bore has a diameter of one and one-quarter inches, centered at a point two and three-quarter inches below the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the mounting support member is two and one-half inches wide by two inches tall by three-quarters of an inch thick, said mounting support member being attached to the back of the vertical side at a point one and three-quarters inches down from the upper end of the vertical side and one-quarter inch from each side of the vertical side and four and one-quarter inches from the lower end of the vertical side, the second

bore has a diameter of one and one-quarter inches and is centered at a point one inch from the top and bottom of the mounting support member and one and one-quarter inches from the sides of the mounting support member, the sheath is five and one-half inches wide by two and one-half inches deep by five and one-half inches tall, the first end bore and second end bore each have a diameter of one and one-quarter inches and are centered two and three-quarters inches from either side of the sheath at any point along that midline of the first wide side and second wide side, as the case may be, so long as the first end bore and second end bore are located at least one-half inch from the bottom of the sheath, and the sheath bolt holes are situated near each of the four corners of each of the first wide side and second wide side.

11. A method of attaching a deck to a building comprising:

- a deck bracket, said deck bracket further comprising a solid bar, an L shaped bracket, a sheath, a mounting support member, a floor joist member and a composite support member;

- said solid bar having a first end and a second end;

- said L shaped bracket having a vertical side and a horizontal side;

- said vertical side comprising an upper end, a middle portion, a lower end, a front face, a back and a plurality of bolt holes;

- said vertical side further comprising a first bore located between the upper end and the middle portion of the vertical side;

- said mounting support member being fixedly attached to the back side of the vertical side;

- said mounting support member comprising a second bore;



said first bore and said second bore being aligned in their relation to each other;

said first end of said solid bar being flush with said front face of said vertical side and being situated within said first bore and said second bore and attached to said vertical side and said mounting support member;

said sheath comprising a first wide side, a second wide side, two narrow sides, an inside, an outer side, a first end bore, a second end bore and sheath bolt holes;

said first end bore being situated within said first wide side;

said second end bore being situated within said second wide side;

said first end bore and said second end bore being aligned in their relation to each other;

said sheath being positioned about and fixedly attached to said floor joist member;

said solid bar being inserted through a first hole in said building and through a second hole in said composite support member such that the second end of said solid bar extends beyond said composite support member;

said second end of said solid bar being inserted into and through said first end bore of said sheath, continuing through a third hole within said floor joist member and further continuing into and through said second end bore, said first, second and third holes being aligned on a horizontal plane with said first bore, second bore, first end bore and second end bore;

whereby said deck bracket extends from an interior of said building such that the L shaped bracket is situated outside of and a distance from said building, said horizontal side of said L shaped bracket holding deck rim joist support members, said deck rim joist support members being fixedly attached to the front face of said vertical side of said L

shaped bracket, said solid bar extending from the first bore and second bore and extending beyond said back of said vertical side of the L shaped bracket into said building, said solid bar further being situated within and through drilled holes in said composite support member and said floor joist member, thereby transferring load from the deck to said members, said solid bar being further supported by said sheath disposed about said floor joist member, whereby a portion of the load of the deck would thereby be transferred to said building and the deck bracket would not be in direct contact with said building other than the solid bar, which would thus diminish or prevent the accumulation of moisture, thus preventing decay of structural load bearing components of the deck and building.

12. The method of claim 11 wherein the first end and the second end of said solid bar are threaded, the first bore is threaded, the second bore is threaded, and the second end bore is threaded, whereby said second end of said solid bar is screwed into the second end bore and said L shaped bracket is screwed onto said first end of said solid bar thereby forming the deck bracket.

13. The method of claim 11 wherein the plurality of bolt holes within said vertical face comprise an upper bolt hole and a lower bolt hole.

14. The method of claim 11 wherein the solid bar, the L shaped bracket and the mounting support member are made of steel or such other strong metal or material of similar strength and characteristics and the sheath is made of steel, tin, aluminum or such other metal or man made material such as plastic, fiberglass, a composite material or the like, of similar strength and characteristics.

15. The method of claim 11 wherein the solid bar is a cylindrical bar of one and one-quarter inches in diameter and has a length of two feet six inches to three feet, the L shaped bracket is made of one-half inch thick steel plate with a width of three inches, the front face of the vertical side is seven and one-half inches in length, the back of the vertical face is eight inches in length, the horizontal side of the L shaped bracket is three and one-half inches in length, the upper bolt hole and the lower bolt hole each have a diameter of seven-sixteenths of an inch, the upper bolt hole is centered at a point three-quarters of an inch down from the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the lower bolt hole is centered at a point five and five-eighths inches below the upper bolt hole and one and one-half inches from either edge of the vertical side of the L shaped bracket, the first bore has a diameter of one and one-quarter inches, centered at a point two and three-quarter inches below the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the mounting support member is two and one-half inches wide by two inches tall by three-quarters of an inch thick, said mounting support member being attached to the back of the vertical side at a point one and three-quarters inches down from the upper end of the vertical side and one-quarter inch from each side of the vertical side and four and one-quarter inches from the lower end of the vertical side, the second bore has a diameter of one and one-quarter inches and is centered at a point one inch from the top and bottom of the mounting support member and one and one-quarter inches from the sides of the mounting support member, the sheath is five and one-half inches wide by two and one-half inches deep by five and one-half inches tall, the first end bore and second end bore each have a diameter of one and

one-quarter inches and are centered two and three-quarters inches from either side of the sheath at any point along that midline of the first wide side and second wide side, as the case may be, so long as the first end bore and second end bore are located at least one-half inch from the bottom of the sheath, and the sheath bolt holes are situated near each of the four corners of each of the first wide side and second wide side.

16. A method of attaching a deck to a building comprising:

a deck bracket, said deck bracket further comprising a solid bar, an L shaped bracket, a sheath, a mounting support member, and a structure support member;

said solid bar having a first end and a second end;

said L shaped bracket having a vertical side and a horizontal side;

said vertical side comprising an upper end, a middle portion, a lower end, a front face, a back and a plurality of bolt holes;

said vertical side further comprising a first bore located between the upper end and the middle portion of the vertical side;

said mounting support member being fixedly attached to the back side of the vertical side;

said mounting support member comprising a second bore;

said first bore and said second bore being aligned in their relation to each other;

said first end of said solid bar being flush with said front face of said vertical side and being situated within said first bore and said second bore and attached to said vertical side and said mounting support member;

said sheath comprising a first wide side, a second wide side, two narrow sides, an inside, an outer side, a first end bore, a second end bore and sheath bolt holes;

said first end bore being situated within said first wide side;  
said second end bore being situated within said second wide side;  
said first end bore and said second end bore being aligned in their relation to each other;

said sheath being positioned about and fixedly attached to said structure support member;

said solid bar being inserted into and through a first hole in said building, said second end of said solid bar extending to and through said first end bore of said sheath and continuing through a second hole within said structure support member and further continuing into and through said second end bore, said first and second holes being aligned on a horizontal plane with said first bore, second bore, first end bore and second end bore;

whereby said deck bracket extends from an interior of said building such that the L shaped bracket is situated outside of and a distance from said building, said horizontal side of said L shaped bracket holding deck rim joist support members, said deck rim joist support members being fixedly attached to the front face of said vertical side of said L shaped bracket, said solid bar extending from the first bore and second bore and extending beyond said back of said vertical side of the L shaped bracket into said building, said solid bar further being situated within and through a drilled hole in said structure support member, thereby transferring load from the deck to said member, said solid bar being further supported by said sheath disposed about said structure support member, whereby a portion of the load of the deck would thereby be transferred to said building and the deck bracket would not be in direct contact with said building other than

the solid bar, which would thus diminish or prevent the accumulation of moisture, thus preventing decay of structural load bearing components of the deck and building.

17. The method of claim 16 wherein the first end and the second end of said solid bar are threaded, the first bore is threaded, the second bore is threaded, and the second end bore is threaded, whereby said second end of said solid bar is screwed into the second end bore and said L shaped bracket is screwed onto said first end of said solid bar thereby forming the deck bracket.

18. The method of claim 16 wherein the plurality of bolt holes within said vertical face comprise an upper bolt hole and a lower bolt hole.

19. The method of claim 16 wherein the solid bar, the L shaped bracket and the mounting support member are made of steel or such other strong metal or material of similar strength and characteristics and the sheath is made of steel, tin, aluminum or such other metal or man made material such as plastic, fiberglass, a composite material or the like, of similar strength and characteristics.

20. The method of claim 16 wherein the solid bar is a cylindrical bar of one and one-quarter inches in diameter and has a length of seven inches, the L shaped bracket is made of one-half inch thick steel plate with a width of three inches, the front face of the vertical side is seven and one-half inches in length, the back of the vertical face is eight inches in length, the horizontal side of the L shaped bracket is three and one-half inches in length, the upper bolt hole and the lower bolt hole each have a diameter of seven-sixteenths of an inch, the upper bolt hole is centered at a point three-quarters of an inch down from the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the lower bolt hole is centered at a point five and five-

eighths inches below the upper bolt hole and one and one-half inches from either edge of the vertical side of the L shaped bracket , the first bore has a diameter of one and one-quarter inches, centered at a point two and three-quarter inches below the upper end of the vertical side and one and one-half inches from either edge of the vertical side of the L shaped bracket, the mounting support member is two and one-half inches wide by two inches tall by three-quarters of an inch thick, said mounting support member being attached to the back of the vertical side at a point one and three-quarters inches down from the upper end of the vertical side and one-quarter inch from each side of the vertical side and four and one-quarter inches from the lower end of the vertical side, the second bore has a diameter of one and one-quarter inches and is centered at a point one inch from the top and bottom of the mounting support member and one and one-quarter inches from the sides of the mounting support member, the sheath is five and one-half inches wide by two and one-half inches deep by five and one-half inches tall, the first end bore and second end bore each have a diameter of one and one-quarter inches and are centered two and three-quarters inches from either side of the sheath at any point along that midline of the first wide side and second wide side, as the case may be, so long as the first end bore and second end bore are located at least one-half inch from the bottom of the sheath, and the sheath bolt holes are situated near each of the four corners of each of the first wide side and second wide side.